



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,549	07/19/2001	Balakrishnan Ramakrishnan	RSTN-010	1952
7590	02/23/2005		EXAMINER	
Wilson & Ham PMB: 348 2530 Berryessa Road San Jose, CA 95132			MIZRAHI, DIANE D	
			ART UNIT	PAPER NUMBER
			2165	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/909,549	RAMAKRISHNAN, BALAKRISHNAN	
Examiner	Art Unit		
DIANE D. MIZRAHI	2165		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 19 July 2001.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-43 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 23-32 is/are allowed.

6)  Claim(s) 1-3, 12-14 and 33-35 is/are rejected.

7)  Claim(s) 4-11, 15-22 and 36-43 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on July 19, -2001 is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of: .

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

DIANE D. MIRRAH  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7-19-01.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_ .

**III. DETAILED ACTION**

Claims 1-43 are presented for examination.

**Claim Objections**

Claims 1-43 are objected to because of the following informalities:

Regarding Claims 1-32, Applicant's preamble, line 1, the Claims should read, "A computer-implemented method";

Regarding Claims 23-32, (line 1), the Claims should read "A computer-implemented system".

Regarding Claims 33-43, (line1), the Claims should read, "A computer-readable medium".

Appropriate correction is required.

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the

United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 12-14, and 33-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Zahir Ebrahim et al. (US Patent No. 5,848,423 and Ebrahim hereinafter).

Regarding Claims 1,12,23 and 33, Ebrahim teaches a method for managing a re-usable resource comprising:

dividing a pool of integers into groups that include unique sets of integers (col 12, lines 30-46; see also Figure 8);

and initializing, in computer memory, a doubly linked list (i.e. Link1... Link2...) (Figure 8) that represents one of said groups of integers in response to a request for a free integer (col 12, lines 30-46; see also Figure 8),

wherein said one group of integers includes said free integer (col 12, lines 30-46; see also Figure 8).

Regarding Claims 2, 13 and 34 , Ebrahim teaches deleteing (i.e. removing) (col 8, lines 1-27) an active doubly linked list that represents one of said groups of integers when all of the integers in said one group are free (col 12, lines 30-46; see also Figure 8) see also (col 12, lines 30-46; see also (col 8, lines 1-27; see also Figure 4B)).

Regarding Claims 3, 14 and 35, Ebrahim teaches establishing an array of linked list elements that defines said group of

Art Unit: 2165

integers (col 8, lines 1-27; see also Figure 4B), wherein each linked list element includes a next pointer for identifying a next linked list element (col 8, lines 1-27; see also Figure 4B) and a previous pointer for identifying a previous linked list element (col 8, lines 1-27); forming a doubly linked list, from said linked list elements (i.e. Link1... Link2...) (Figure 8), that includes all of the integers in said group of integers (col 8, lines 1-27; see also Figure 4B); and establishing a head element having a next pointer for identifying one end of said doubly linked list and a previous pointer for identifying the other end of said doubly linked list (col 12, lines 30-46; see also Figure 8).

**Allowable Subject Matter**

Claims 23-32 are allowed over the prior art made of record.

The following is a statement of reasons for the indication of allowable subject matter:

Applicant's particular hash table which stored in the computer memory and which includes a plurality of hash table pointers that are related to unique groups of integers from an integer pool, each of the hash table pointers including a field for identifying a location in the computer memory of a doubly linked list that is related to one of the groups of integers;

initializing in the computer memory, a doubly linked list that represents one of the groups of integers in response to a request for a free integer, wherein the one group of integers includes the free integer in combination with the other limitations of the claims, was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record.

The dependent claims, being further limiting to the independent claims, definite and enabled by the Specification are also allowed. The closest prior art fails to anticipate or render Applicant's limitations above obvious.

Claims 4-11, 15-22, 15-22, and 36-43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's particular managing a re-usable resource by dividing the pool of integers into groups includes establishing a hash table that includes hash table pointers, wherein the hash table pointers identify locations in the computer memory of doubly linked lists that are related to the groups of integers in combination with the other limitations of the claims, was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record.

The dependent claims, being further limiting to the independent claims, definite and enabled by the Specification are also allowed. The closest prior art fails to anticipate or render Applicant's limitations above obvious.

**Other Prior Art Made of Record**

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. U.S. patents and U.S. patent application publications will not be supplied with Office actions. Examiners advises the Applicant that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. For the use of the Office's PAIR system, Applicants may refer to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane D. Mizrahi whose telephone number is (703) 305-3806. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (703) 305-3830. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-9000 for regular communications and (703) 305-9000 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9001.

---

Diane Mizrahi  
Primary Patent Examiner  
Technology Center 2100

February 7, 2005